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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,541	12/20/2001	Huan-Lung Gu	1291029	1449

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EXAMINER

VAN PELT, BRADLEY J

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 08/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/027,541

Applicant(s)

GU ET AL.

Examiner

Bradley J Van Pelt

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the torque cam and the second transmission device with a chain and two wheels must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 2 and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The structure of the torque cam is not clear, and therefore, it is unclear as to how the distance between the two wheel plates of the secondary wheel is altered.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 4, 8, 13, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation "a second transmission belt"; this limitation is confusing and indefinite because a first transmission belt has not be set forth.

Claims 13 and 14 both recite the limitation "said transmission box" in lines 2 and 3. There is insufficient antecedent basis for this limitation in the claims. Claim 12 properly sets forth the limitation "a transmission box."

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3, 4, 6-8, 10, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Fiala (USPN 4,400,997).

Fiala discloses a hybrid power system with external auxiliary motor, comprising: a first power unit (1), having a primary shaft (shaft between clutch 3 and engine 5); a secondary shaft (between transmission 4 and engine 5), driven by said primary shaft in a rotational movement; a first transmission device (4), placed between said primary shaft and said secondary shaft, transmitting torque from said primary shaft to said secondary shaft; an auxiliary power unit (6), having an electric motor with a driving shaft (shaft between motor 6 and 8a), which is parallel to

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said primary shaft; and a second transmission device (7), placed between said primary shaft and said driving shaft, transmitting torque from said electric motor to said primary shaft;

said first power unit is an internal combustion engine (see column 2, lines 47-49);

said second transmission device further comprises: a first wheel (8a), mounted on said driving shaft; a second wheel (8), mounted on said primary shaft; and a second transmission belt (7), running over said first and second wheels, allowing said first and second wheels to drive each other;

said electric motor is connected with a rechargeable battery as an energy source to drive said secondary shaft (see column 2, lines 15-20);

said electric motor, when not operating as a motor, generates electricity to recharge a battery (see column 5, lines 5-7);

said second transmission belt is a regular transmission belt;

said second transmission device has a chain and two gear wheels, transmitting torque from said electric motor to said primary shaft (see column 2, line 40)

said second transmission device has at least two gear wheels (see column 2, line 40).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fiala in view of Adams (USPN 3,975,964).

Fiala discloses a first transmission device, however, fails to show a primary wheel, having two wheel plates of conical shapes at a mutual distance; a ball, placed outside a rotational axis controlling said distance of said two wheel plates of said primary wheel; a secondary wheel having two wheel plates of conical shapes at a mutual distance; and a torque cam with a spring, controlling said distance of said two wheel plates of said secondary wheel depending on load; and a transmission belt, running over said primary and secondary wheels.

Adams shows a primary wheel (4), having two wheel plates (4', 4'') of conical shapes at a mutual distance; a ball (8), placed outside a rotational axis controlling said distance of said two wheel plates of said primary wheel; a secondary wheel (2) having two wheel plates (2', 2'') of conical shapes at a mutual distance; and a torque cam with a spring (6), controlling said distance of said two wheel plates of said secondary wheel depending on load; and a transmission belt (14), running over said primary and secondary wheels; and a clutch (32).

To modify the apparatus of Fiala so as to provide a clutched constant speed drive system would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the teachings of Adams that such an arrangement improves the operable range of the hybrid vehicle.

10. Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fiala in view of Taniguchi et al. (USPN 6,443,871), herein after Taniguchi.

Fiala discloses all of the instantly claimed invention except, a signal generator is mounted on said primary shaft for generating timing signals for ignition of said first power unit;

said first power unit drives a rotational movement of said primary shaft via a transmission box.

Taniguchi shows a signal generator (90) is mounted on a primary shaft (36) for generating timing signals;

a first power unit drives a rotational movement of said primary shaft via a transmission box (16).

To modify the apparatus of Fiala so as to provide a signal generator would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the teachings of Taniguchi that such an arrangement improves the ability to control the clamping forces of a cvt.

To modify the apparatus of Fiala so as to provide a transmission box would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the teachings of Taniguchi that such an arrangement further improves the ability to obtain the desired gear ratios.

11. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fiala in view of Kawashima (USPN 4,631,977).

Fiala discloses all of the instantly claimed invention, except a kick starter is mounted on said transmission box or said primary shaft for starting said first power unit.

Kawashima shows a kick starter (44) is mounted on said transmission box or said primary shaft for starting said first power unit.

To modify the apparatus of Fiala so as to provide a kick starter would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the teachings of Kawashima that such an arrangement improves the cost weight of the vehicle by eliminating the need for an electric starter.

12. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fiala in view of Adams as applied to claim 2 above, and further in view of Zindler (USPN 3,971,463).

The above reference combination shows a clutch (32), however, fails to show a seat, at least one gripping block, and at least one spring.

Zindler shows a seat (52), at least one gripping block (27), and at least one spring (43).

To modify the above reference combination so as to provide a seat, block and spring would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the teachings of Zindler that such an arrangement allows the clutch to progressively increase the torque transmitting capability.

Conclusion


13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Steinlein (USPN 3,082,636), Miyamaru et al. (USPN 4,925,432), Tateno (USPN 5,242,330), Liao (USPN 6,109,127), Miyazaki et al. (JP 63-30612 A).

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley J Van Pelt whose telephone number is 703.305.8176. The examiner can normally be reached on M-Th 7:00-4:30, 2nd F 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Bucci can be reached on 703.308.3668. The fax phone numbers for the organization where this application or proceeding is assigned are 703.872.9326 for regular communications and 703.872.9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.2168.

BJVP
July 30, 2003


DAVID A. BUCCI 8/14/03
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